July 11, 1939. H. MARCUS 2,165,561

COMBINATION SHORTS AND SANITARY BELT

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Fig. 1

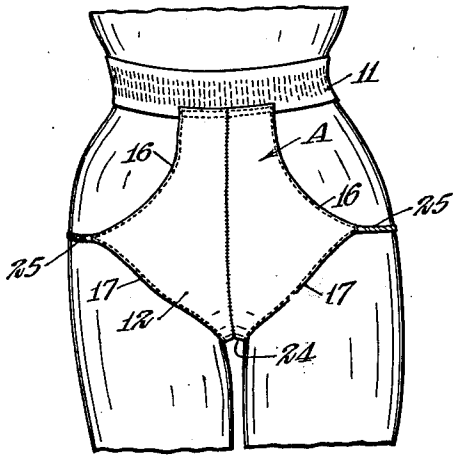


Fig. 2

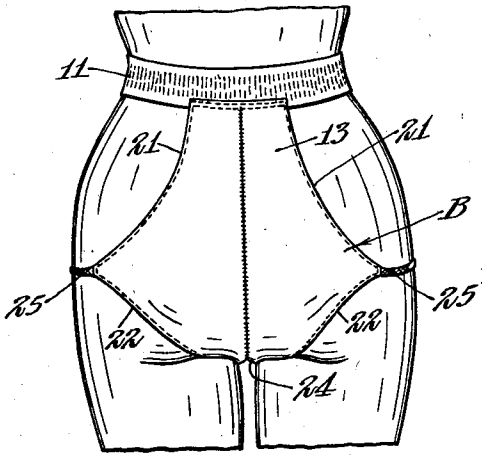


Fig. 3

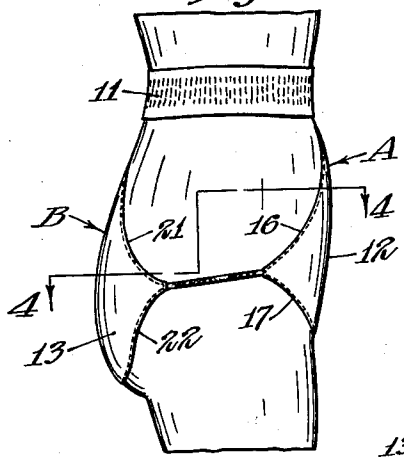


Fig. 5

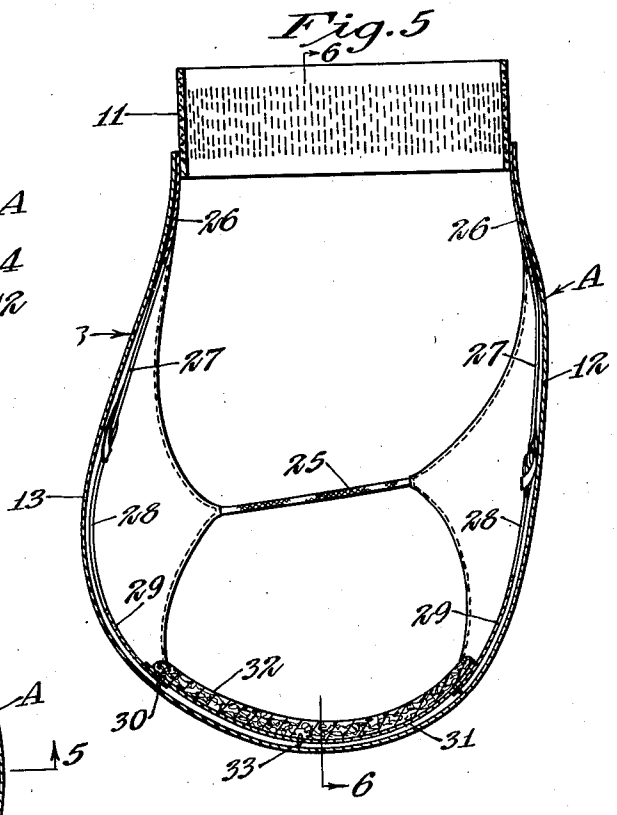
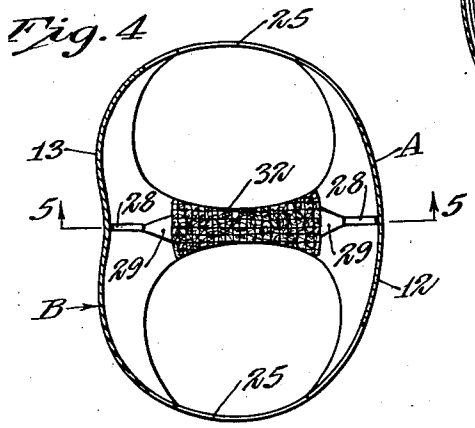


Fig. 4



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Fig. 6

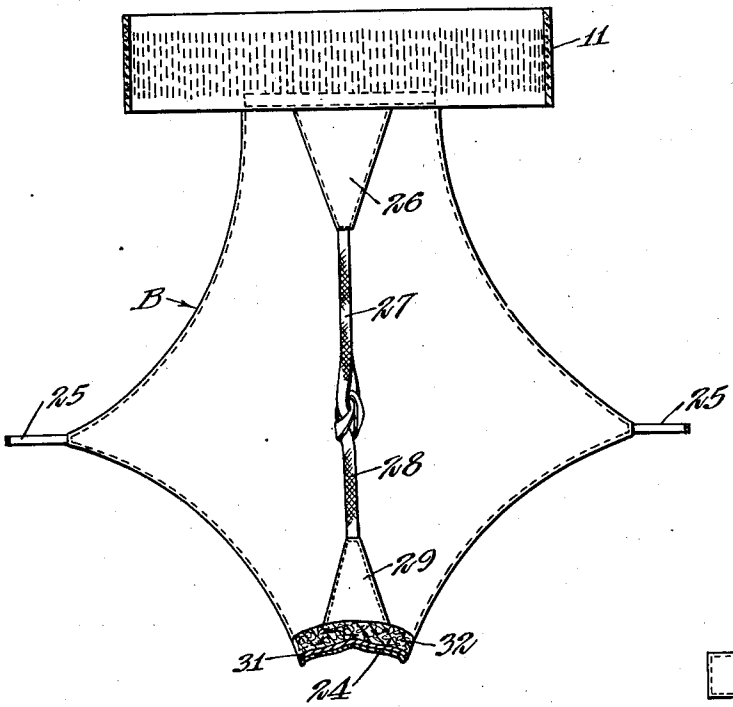


Fig. 7

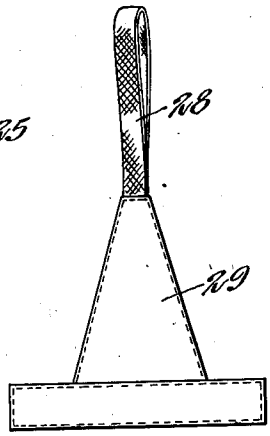


Fig. 10

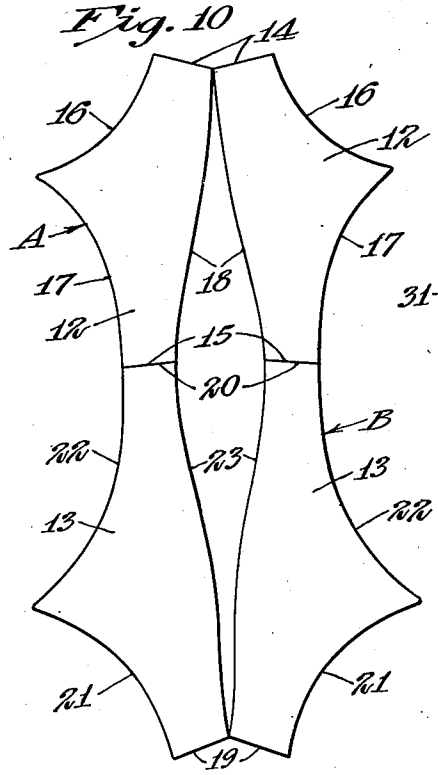


Fig. 8

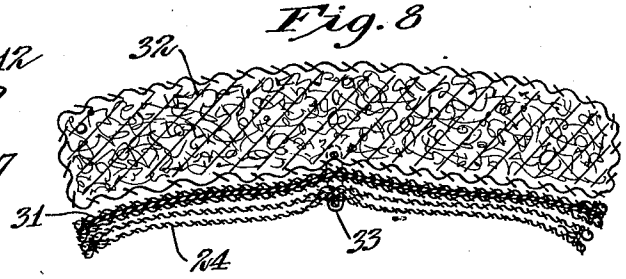
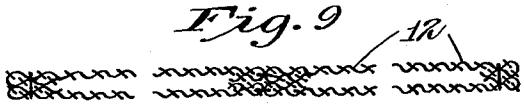


Fig. 9



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Patented July 11, 1939

2,165,561

UNITED STATES PATENT OFFICE

2,165,561

COMBINATION SHORTS AND SANITARY BELT

Harry Marcus, Minneapolis, Minn.

Application March 17, 1938, Serial No. 196,380

3 Claims. (Cl. 128—288)

This invention relates to underwear garments in the nature of shorts, certain features of which invention may be incorporated in shorts for both women and men, but other features of which are peculiarly adapted for use only in women's shorts. The invention further relates to combination shorts and sanitary belts.

It is one of the objects of this invention to provide a novel and improved underwear garment in the nature of shorts which will comfortably and properly fit about the crotch of the wearer, and which garment will retain its position on the wearer's body when the wearer is active without bulging or detracting from the appearance of the wearer.

Another object is to provide a novel and improved underwear garment which can be used both as a sanitary belt and ordinary shorts.

A further object is to provide a novel garment which will properly and comfortably support a sanitary pad in proper position for use.

The objects and advantages of the invention will more fully appear from the following description, made in connection with the accompanying drawings, wherein like reference characters refer to the same or similar parts throughout the various views, and in which,

Fig. 1 is a view in front elevation of an embodiment of the garment applied to a woman's body;

Fig. 2 is a view in rear elevation of the same similarly applied;

Fig. 3 is a side elevation of the garment showing it in place on a woman's body;

Fig. 4 is a sectional view through the garment taken substantially on the line 4—4 of Fig. 3, as indicated by the arrows;

Fig. 5 is a vertical section taken in enlarged scale through the garment on the line 5—5 of Fig. 4, as indicated by the arrows;

Fig. 6 is a vertical section taken transversely through the garment on the line 6—6 of Fig. 5, as indicated by the arrows;

Fig. 7 is a detail view of one of the tabs used;

Fig. 8 is an enlarged detail taken through the crotch strap portion of the garment and showing the various thicknesses of cloth employed;

Fig. 9 is an enlarged detail taken transversely through a portion of the garment showing in section the construction employed, and

Fig. 10 is a view showing in plan the pattern for the front and rear sections of the garment.

The drawings illustrate the garment made up for use as a combination shorts and sanitary belt for women.

Referring to the drawings, the main parts of the garment of the invention are formed by a front section designated as an entirety by the letter A, a rear section designated as an entirety by the letter B and an elastic belt 11 to which the upper ends of both the front and rear sections A and B are connected and adapted to encircle the waist of the wearer just above the hips. The front section A essentially consists of two wings 12 of generally triangular shape with the longest edges of the triangles running vertically and the two wings being secured together along their longest edges. The rear section B similarly essentially consists of two wings 13 of generally triangular-shape with the longest edges of the triangle running vertically and the two wings being secured together along their longest edges. The pattern for the wings 12 and wings 13 is shown in Fig. 10 and actually the wings 12 have upper end edges 14, lower end edges 15, upper arcuately curved lateral edges 16, lower arcuately curved lateral edges 17 and long inner edges 18 of compound curvature. Similarly, the wings 13 have actually upper end edges 19, lower end edges 20, upper arcuately curved lateral edges 21, lower arcuately curved lateral edges 22 and long inner edges 23 of compound curvature. The rear wings 13 are of greater length than the front wings 12 to give the garment a greater rise at the rear thereof than at the front thereof to cause the garment to conform to the peculiarities of the human body.

The lower edges 15 and 20 of the two right hand front and rear wings 12 and 13 are stitched together, as are the lower edges 15 and 20 of the left hand front and rear wings 12 and 13. It will be noted that the portions of the front and rear wings adjacent the lower edges thereof taper to quite narrow widths, and these lower portions form a crotch strap 24 which fits between the legs of the wearer to underlie the crotch. The upper edges 14 and 19 of the various wings, when the four wings are assembled, extend diagonally upwardly and laterally from the edges 18 and 23 respectively, but as the front and rear wings are stitched to the belt 11 the two edges 14 of the front wings 12 are brought into horizontal alinement and the upper edges 19 of the rear wings 13 are brought into horizontal alinement and so stitched to the elastic belt 11. By reason of this fact the lateral portions of the front section 12 and the lateral portions of the rear section 13 are given fullness relative to the central portions of these two sections, so that as the garment hangs on the body, the crotch strap 24 will be given at its inner and upper side a

convex curvature in transverse cross section, as shown in Figs. 1, 2, 4, 6 and 8. In other words, the center line of the crotch strap 24 lies closer to the belt 11 than the edge portions of the crotch strap do to the belt 11, and by reason of this fact a crotch strap is provided which conforms in curvature to the configuration of the body between the legs. By reason of this curvature of the crotch strap 24, the garment will not shift its position while being worn even though the wearer bends over or exercises.

Attached at their ends at the two sides of the garment to the lateral corners of the front and rear wings 12 and 13 are leg straps 25 which encircle the legs of the wearer and cause the front and rear sections A and B to lie flat against the wearer's body. These leg straps 25 are narrow cloth bands cut on the bias, so that they will have elasticity within limits to take care of the necessary stretch as the wearer sits down and to still rather tightly embrace the legs of the wearer.

Attached to the upper parts of the front and rear sections A and B at the central portions thereof at the inner side of the garment are triangular tabs 26 carrying cloth loops 27. Releasably connected to the loops 27 are lower loops 28 attached to tabs 29, these tabs 29 having upper triangular portions joining bar portions. The loops 27 and 28 are also cut from material set on the bias so that they will have considerable resiliency within limits for a purpose presently to appear. Secured as by safety pins 30 to the bar portions of the front and rear tabs 29 is a cloth covered rubber strip 31 which overlies the crotch strap 24. A sanitary pad or napkin 32 is adapted to be secured to the rubber strip 31 as by the two safety pins 30 attaching the strip 31 to the two tabs 29 and by a third safety pin 33 attached to the central part of the strip 31. With this arrangement the spacing between the two tabs 29 can be adjusted to make the strip 31 of the proper length between the two tabs 29 to cause the pad 32 to be properly held in place and fitted to the requirements of the individual.

In other than the detailed views, Figs. 8 and 9 of the drawings, the wings 12 and 13 are shown as consisting of only a single thickness of material, in order to properly illustrate the garment without obscuring the illustrated construction by a multitude of lines to show double thicknesses. As shown in detail in Figs. 8 and 9, the wings 12 and 13 are actually of double thickness so that each wing consists of two sheets of cloth, the edges of which are secured together by internal hems leaving no rough edges to chafe or irritate the wearer.

For ordinary use the garment can be employed as is an ordinary pair of shorts by detaching the loops 28, tabs 29, strip 31 and pad 32, this being readily accomplished by unknotting the loops 28 from the loops 27. Or, if desired, the loops 28, tabs 29 and strip 31 can be employed without the pad 32, the strip 31 then acting to protect outer garments that may be worn over the present garment. When a sanitary belt is needed the loops 28, tabs 29, strip 31, and pad 32 can be employed and the pad will be properly held in place and properly shaped to fit the anatomy.

Men's garments on the same order as women's garments can be made without the tabs 26, and other parts fastened thereto. Such garments can be used as men's athletic supporters.

The loops 27 and 28 by reason of being cut on the bias have sufficient resiliency to hold the pad 32 in proper position, irrespective of exercise that the woman wearing the garment may take.

It will be seen that a simple and efficient garment has been provided which will serve several purposes and which will properly embrace the body and hold its position without rumpling or bulging during use.

It will, of course, be understood that various changes may be made in the form, details, arrangement and proportions of the various parts without departing from the scope of the present invention, which generally stated consists in the matter shown and described and set forth in the appended claims.

What is claimed is:

1. An underwear garment in the nature of shorts comprising a pair of front wings of general triangular shape secured together at their inner edges to form a substantially diamond shaped front section, said front wings tapering to narrow width toward their lower ends, a pair of rear wings of general triangular shape secured together at their inner edges to form a substantially diamond shaped rear section, said rear wings also tapering to narrow width toward their lower ends, the lower ends of said front and rear wings being stitched together and the lower end portions of said front and rear wings combining to form a crotch strap, and a waist encircling belt to which the upper ends of said front and rear wings are secured, the length of said front and rear sections along the vertical center lines thereof from the waist encircling belt downwardly being shorter than the length of said front and rear sections from said waist belt downwardly laterally of said center lines to cause the inner side of said crotch strap to present a convex curvature transversely thereof.

2. An underwear garment in the nature of shorts comprising a pair of front wings of general triangular shape secured together at their inner edges to form a substantially diamond shaped front section, said front wings tapering to narrow width toward their lower ends, a pair of rear wings of general triangular shape secured together at their inner edges to form a substantially diamond shaped rear section, said rear wings also tapering to narrow width toward their lower ends, the lower ends of said front and rear wings being stitched together and the lower end portions of said front and rear wings combining to form a crotch strap, a waist encircling belt to which the upper ends of said front and rear wings are secured, the length of said front and rear sections along the vertical center lines thereof from the waist encircling belt downwardly being shorter than the length of said front and rear sections from said waist belt downwardly laterally of said center lines to cause the inner side of said crotch strap to present a convex curvature transversely thereof and means for supporting a sanitary pad in position overlying said crotch strap.

3. An underwear garment in the nature of shorts comprising a pair of front wings of general triangular-shape having longest inner edges secured together to form a substantially diamond-shaped front section, said front wings tapering toward their upper ends and having upper end edges normally extending diagonally upwardly and laterally from the inner edges of the wings, said front wings tapering to narrow width toward their lower ends, a pair of rear wings of generally triangular-shape having longest inner edges secured together to form a substantially diamond-shaped rear section, said rear

wings tapering toward their upper ends and having upper end edges normally extending diagonally upwardly and laterally from the inner edges of the rear wings, said rear wings tapering to narrow width toward their lower ends, the lower ends of said front and rear wings being stitched together and the lower end portions of said front and rear wings combining to form a crotch strap and a waist encircling belt to which the upper edges of said front and rear wings are secured in such manner as to bring the upper edges of said front wings into substantially horizontal alignment and the upper edges of said rear wings into horizontal alignment, whereby the lengths of said front and rear sections along the vertical center lines thereof from the waist encircling belt downwardly are shorter than the lengths of said front and rear sections respectively from said waist belt downwardly laterally of said center lines to cause the inner side of said crotch strap to present a convex curvature transversely thereof.

HARRY MARCUS.